



Public Health

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Frederick County Health Department

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Septic Installers

Re: 2008 Septic System Construction Policies

Dear Septic Installer:

This letter is to provide new septic installers with basic Health Department requirements for septic system installations. It is also a reminder for existing installers. Hopefully this letter will answer some of the questions you have concerning the subject.

The Frederick County Health Department requires that the following procedures be followed when septic systems are being constructed:

- 1.) The initial septic system must be installed in the highest part of the septic area as possible. If the sewer line exiting the building is lower in elevation than the highest corner of the septic area, **cease work and contact the Health Department**. If the system is installed deeper in the ground or lower in the septic area than shown on the septic drawing, **the system will not be approved for closure.**
The installation of a sand mound septic system can be in the lowest elevations of the septic area.
- 2.) Deep trenches or tile field systems must be laid out on the contour of the ground using a transit or level so that the bottom of the trench is level. The system location should be laid out on top of the ground prior to any excavation. (This includes new septic systems and septic system repairs.)
- 3.) The leaching part (tile fields, trenches, pits, etc.) of the septic system is designed to have a **maximum of 18" of cover.**
- 4.) Septic tank manufacturing specifications specify no more than 4' of cover. The Frederick County Health Department requires that a two (2)-chamber septic tank or two (2) single chambered septic tanks be installed for all new construction. **The first and second chambers are to have risers to final grade.** A riser may substitute for the observation pipe. Lids on risers weighing more than 150 pounds do not have to be secured. Lids weighing less than 150 pounds must be secured so that it cannot be removed without tools or a key. The risers and lid must be installed so that outside water cannot leak into the septic tank. *****Four (4) inches of small gravel should be placed in the hole for the septic tank to rest on. NO STONE DUST PERMITTED.**
The original lids for the septic tanks must remain in place even with a lid on a riser. The Health Department recommends a riser over each main access port.
- 5.) When installing a septic system, schedule 40 PVC is to be used everywhere in the septic system except for header pipes and perforated drain field pipe. All schedule 40 PVC must be connected with purple primer and appropriate glue. Perforated pipe must have 3 holes per foot. Holes must be 5/8 – 3/4" in diameter and must meet 1,200 pound crush requirements.
- 6.) Changes in the septic system design cannot be made without approval of the Health Department.
- 7.) Upon final inspection, the inspection plugs on the septic tank and seepage pits must be opened or loosened for inspection, as well as the distribution box lid. If the plugs cannot be removed by hand, the system will not be approved for closure. Also, make sure the vent holes on the septic tank are open so that the system will vent through the roof vent on the building. **Inlet and outlet pipes should not extend into baffle more than 2 inches.**

George Keller ▪ Director



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- 8.) Water must be left at the distribution box to check the lines of the distribution box to ensure they are level. (No other type of liquid can be used for this purpose, i.e. antifreeze.)
- 9.) A baffle must be placed in the distribution box when the distribution box is on a steep grade (greater than 10%). This baffle must be cemented to the bottom of the distribution box. If a baffle cannot be cemented in the box, two boxes must be used. The first box is to serve as a surge box and the other as the distribution box. The inlet and outlet of the surge box should not be inline (should be perpendicular to one another).
- 10.) Cleanouts must be installed every 75 feet in the line between the house and the tank, as well as between the tank and the leaching area.
- 11.) **The stone used in the septic system is what used to be called "Washed Large #2" or "SRC #2". The new designation is ASTOE #3. Any other stone found in the septic trenches will cause the system to not pass final inspection and the stones will have to be removed and replaced with the correct stone. The stone can only have a few fines mixed in.**
- 12.) The stone in the trenches must cover the top of the perforated pipe. The stone should be raked level on top of the pipe. All stone is to be covered with rosin paper, geo-textile fabric, or newspaper at the time of inspection. The Health Department recommends using geo-textile that meets sand mound specifications. When installing multi-trench systems, care should be taken in placing the dirt from the second and subsequent trenches so that the beginning, middle and end of all trenches are exposed for inspection.
- 13.) **24 hours notice is required for inspections (NO VOICE MAILS PERMITTED)**
- 14.) **Every day is not suitable for septic installation. If the weather forecasts call for heavy rain or 2-3 days or rain, septic systems should not be installed.**
- 15.) **Stone tickets must be presented to the Health department upon final inspection to verify amount of stone. The Health Department will also accept a faxed copy of the tickets at 301-600-3180.**
- 16.) **All 4 corners of the septic area must be staked at the time of final inspection.**
- 17.) **At the time of septic inspections, septic installer must provide the Health Department with a drawing of the as-installed septic system. Accurate measurements must be provided of the length of the pipe between the house and the tank, the pipe from the tank to the distribution box, header pipes, etc. Also, measurements must be provided from two opposite house corners to the center of the septic tank manhole(s) and to the center of the distribution box.**
- 18.) Sleeves are required when sewer lines cross under driveways. The sleeve is used to protect the pipe and to provide easier replacement when and if needed. Sleeves should extend a minimum of 5 feet on each side of the drive.
Gravel may be used in place of sleeves. Small gravel is to be used to fill around pipe and brought to final grade under the driveway or parking area.
- 19.) **The fall in the line between the house and septic tank should be the same as the fall in the waste line inside the house between 1/8 – 1/4 inch per foot (5" in 20"). If the slope of the ground between the house and the septic tank is greater than 5" fall in 20 feet, the sewer line should be stepped; that is carry the 1/4" per foot out from the house until you are within 18" of the surface of the ground, use a 1/8 bend to drop the pipe, then insert another 1/8 bend to establish your 1/4" per foot slope. If looked at from the front side the pipe would look like a step.**
- 20.) **Any over dig in the sewer line from the house to the tank or tank to the distribution box should be backfilled with stone or sand, not compacted dirt.**
- 21.) **Health Department recommends effluent filters in the second compartment of the septic tank.**
- 22.) **Pictures are not acceptable as a method of inspection.**